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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
SHAN, APRIL YING	
ART UNIT	**PAPER NUMBER**
2135	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/784,587	OSBORN, KEVIN G.	
	Examiner	Art Unit	
	APRIL Y. SHAN	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30 and 32-34* is/are pending in the application.

4a) Of the above claim(s) *15 and 16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,17-30 and 32-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Applicant's amendment, filed 06 December 2007, has been received, entered into the record, and respectfully and fully considered.

2. As a result of the amendment, claims 1-2, 5-6, 17-18, 21-22, 30 and 32 have been amended. Claim 31 has been cancelled. Claims 33-34 are newly added claims. Claims 15-16 are withdrawn from consideration. Therefore, claims 1-14, 17-30 and 32-34 are now presented for examination.

3. Any objections or rejections not repeated below for record are withdrawn due to Applicant's amendment.

Admitted Prior Art

4. The examiner is aware of Applicant's Admitted Prior Art on pages 1-3 of the Applicant's original disclosure.

Specification

5. The examiner acknowledges that the Applicant deletes "or c)…signaling in a carrier wave" on page 16.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-14, 17-30 and 32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-14 are directed to a method of tracking incoming transmissions. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. The claimed steps do not result in a tangible result. Claims 1-14 are rejected as being directed to an abstract idea (i.e., producing non-tangible result) [tangible requirement does require that the claim must recite more than a 101 judicial exception, in that the process must set forth a practical application of that 101 judicial exception to produce a real-world result, Benson, 409 U.S. at 71-72, 175 USPQ at 676-77).

Claims 17-29 and 32 are directed to a data communication device for tracking incoming transmissions. However, it appears that the device would reasonably be interpreted by one of ordinary skill in the art as software, per se. There is no element positively recited as part of the device. Applicant's specification provides no explicit and deliberate definition of any positive element, and it appears that such would reasonably be interpreted as representative of the software. As such, it believed that the device of claims 17-29 and 32 are reasonably interpreted as functional descriptive material, per se.

Claim 30 is directed to a computer program product having a computer readable medium operable to store computer program logic. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. The claimed computer code does not result in a tangible result. Claim 30 is

rejected as being directed to a software does not result in a tangible result (i.e., producing non-tangible results) [tangible requirement does require that the claim must recite more than a 101 judicial exception, in that the process must set forth a practical application of that 101 judicial exception to produce a real-world result, Benson, 409 U.S. at 71-72, 175 USPQ at 676-77).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-3, 5, 9-10, 14, 17-19, 21, 25-26, 30 and 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of common knowledge in the art.

As per **claims 1, 17 and 32**, Admitted Prior Art discloses a method/data communication device of tracking incoming transmissions comprising:

identifying an incoming transmission including at least one identifiable portion

(e.g. page 2, lines 9-21 of the Applicant's Admitted Prior Art);

computing, for each identifiable portion in the incoming transmission, a fingerprint indicative of the identified portion, the fingerprint being substantially unique to the identified portion ("The present invention is based, in part, on the observation that typical conventional virus diction software monitors incoming arrivals of network traffic" – page 3, lines 3-4 of the Applicant's original disclosure and "The conventional virus detection application also computes a signature for portions of incoming messages for comparison" – e.g. page 2, lines 19-20 of the Applicant's original disclosure);

receiving a set of comparison fingerprints corresponding to known portions, the comparison fingerprints being predetermined ("Such conventional virus detection applications, therefore, employ a set of known virus fingerprints for comparison with incoming mail messages" – e.g. page 2, lines 22-25 of the Applicant's original disclosure); and

comparing the stored fingerprints to the comparison fingerprints to identify stored fingerprints matching comparison fingerprints and, if a match is found, identifying the previous incoming transmission corresponding to the matching stored fingerprint ("…Conventional off-the-shelf (OTS) virus detection software typically scans for such undesirable transmission by matching against **a set of known harmful transmissions. Typically, such conventional matching includes comparing a signature or other digital artifact…**therefore, employ a set of known virus fingerprints for comparison with incoming mail message…" - e.g. page 2, lines 9-25 of the Applicant's original disclosure).

Although the Admitted Prior Art does not expressly disclose storing the computed fingerprint to generate a set of stored fingerprints, the Admitted Prior Art discloses on page 2, lines 22-27, “Such conventional virus detection applications, therefore, employs a set of known virus fingerprints for comparing with incoming mail messages. The **set contains** a fingerprint for each known virus which the application is to protect against, and the application compares each fingerprint in the set to suspect message portions. Typically, vendors of such conventional virus detection applications provide **periodic updates** including additions to the fingerprint set of known virus". It is common knowledge in the art that in order to compare a set of fingerprints computed from a message against a set of fingerprints stored in the database or repository and in order to periodic updates to the fingerprint set of known virus, the computed fingerprints at least have to be stored in a temporary buffer or storage prior to comparison and updates. It would have been obvious to a person with ordinary skill in the art at the time of invention that storing the computed fingerprint to generate a set of stored fingerprint in order to be compared against/update the fingerprints stored in the database or repository.

As per **claims 2 and 18**, Admitted Prior Art further discloses wherein storing further comprises selectively storing, if the incoming transmission does not correspond to the comparison fingerprints, at least one fingerprint corresponding to the identifiable portions of the incoming transmission (e.g. page 2, lines 19-21 of the Applicant’s original disclosure).

As per **claims 3 and 19**, Admitted Prior Art further discloses wherein computing the fingerprint value includes determining a signature and comparing comprises signature matching (e.g. page 2, lines 22-25 of the Applicant's original disclosure).

As per **claims 5 and 21**, Admitted Prior Art further discloses wherein the comparison fingerprints are virus signatures computed from known undesirable transactions (e.g. page 2, lines 22-25 of the Applicant's original disclosure).

As per **claims 9 and 25**, Admitted Prior Art further discloses wherein the determined undesirable portion did not indicate undesirable transmissions based on the comparing of a previous set of comparison fingerprints (e.g. page 2, lines 19-25).

As per **claims 10 and 26**, Admitted Prior Art further discloses comprising demarcating the incoming transmission into segments, each segment operable to yield a fingerprint, wherein comparing further comprises comparing each value in the set of comparison fingerprints with at least one of the segments (e.g. page 2, lines 19-25).

As per **claim 14**, Admitted Prior Art further discloses wherein the undesirable portions are selected from the group virus, worms and Trojan horses included as an attachment according to an established mail protocol (e.g. page 1, lines 4-5 and page 2, lines 9-13)

As per **claim 30**, Admitted Prior Art and common knowledge in the art discloses the claimed method of steps as applied above in claim 1. Therefore, Admitted Prior Art and common knowledge in the art discloses the claimed computer program/computer data signal for carrying out the method of steps.

11. Claims 4, 6-8, 11-13, 20, 22-24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art and common knowledge in the art as applied to claims 1 and 17 above, and further in view of Paul (U.S. Patent No. 6,052,709).

As per **claims 4 and 20**, Admitted Prior Art – common knowledge further discloses comprising receiving at least one successive set of comparison fingerprints, and iteratively comparing the successive sets of comparison fingerprints to the stored fingerprints (page 2, lines 19-25 of the Applicant's original disclosure).

Admitted Prior Art – common knowledge in the art do not expressly discloses wherein if a match is found, identifying a distribution set of the incoming message corresponding to the matching stored fingerprint and transmitting an indication of the match to the distribution set.

Paul discloses wherein if a match is found, identifying a distribution set of the incoming message corresponding to the matching stored fingerprint and transmitting an indication of the match to the distribution set (abstract, col. 1, line 61 – col. 2, line 24, col. 4, line 35 – col. 5, line 9).

It would have been obvious to a person with ordinary skill in the art to combine Paul's wherein if a match is found, identifying a distribution set of the incoming message corresponding to the matching stored fingerprint and transmitting an indication of the match to the distribution set with Admitted Prior Art – common knowledge in the art motivated by "there is a need for a system that automatically and efficiently identifies unsolicited e-mails messages and controls the delivery of these messages to users…by

preventing delivery of the messages to the user's in-boxes", as disclosed by Paul (col. 1, lines 41-49)

As per **claims 6 and 22**, Paul further discloses comprising storing an indication of the subsequent disposition of the incoming transmission; receiving a subsequent set of comparison fingerprints, the subsequent set indicative of refinements to the known portions; matching the subsequent set to the stored fingerprints; determining, based on the matching of the subsequent set, if the subsequent set of comparison fingerprint is indicative of an undesirable portion in the incoming transmission; and selectively performing, based on the determining, a remedial action in response to the subsequent disposition (e.g. col. 5, lines 1-32, col. 5, line 56 – col. 6, line 16, col. 6, line 64 – col. 7, line 1).

As per **claims 7 and 23**, Paul further discloses wherein the subsequent disposition includes transmitting the incoming transmission to a list of successive recipients; and the remedial action is sending a notification to the successive recipients indicative of the matching incoming transmission (e.g. abstract).

As per **claims 8 and 24**, Admitted Prior Art – common knowledge in the art – Paul further discloses wherein the incoming transmission further comprises a series of potentially harmful network transmissions, each of the incoming transmission operable to include malicious code, wherein the subsequent disposition includes delivery to at least one successive recipient and remedial action includes determining the successive recipients from the stored successive disposition and notifying each of the successive recipients (Paul, abstract; Admitted Prior art – page 2, lines 19-25).

As per **claims 11 and 27**, Paul further discloses comprising identifying a segment type of each segment, the segment type corresponding to the content included in the segment; and categorizing each of the segments according to a heuristic, the heuristic indicative of a likelihood of the categorized segment including an undesirable transmission (e.g. col. 7, lines 37-54).

As per **claims 12 and 28**, Admitted Prior Art - Paul further discloses comprising: identifying a risk assessment of each of the segment types and storing the segment according to the identified risk assessment, storing further including identifying a duration (e.g. Paul - col. 7, lines 37-54 and Admitted Prior Art – e.g. page 2, lines 19-27).

As per **claims 13 and 29**, Admitted Prior Art –common knowledge in the art further discloses wherein storing the segments further comprises storing the content of the segment with the corresponding fingerprint (page 2, lines 19-25 of the Applicant's original disclosure and it is well known in the art that storing the content of the segment with the corresponding fingerprint in order to avoid storage duplications)

12. Claims 33 and 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art –common knowledge in the art as applied to claims 1 and 17 above, and further in view of Van der Made (U.S. Pub. No. 20030212902).

As per **claims 33 and 34**, Admitted Prior Art –common knowledge in the art does not expressly disclose identifying a previous incoming transmission is a retroactive analysis of a previously accepted transmission.

Van der Made discloses identifying a previous incoming transmission is a retroactive analysis of a previously accepted transmission ("Most preferably, each time a new program is analyzed a new instance of the AVPE is generated, free of modification by any previously virtualized programs including any earlier analyzed viruses…setting bits in the behavior pattern register according to the observed behaviors. It is these bits in the behavior pattern that are retained after the simulation is complete…The bits stored in the behavior pattern register are the behavior pattern and subsequent analysis indicates whether the virtually executed program includes behaviors indicative of the presence of a virus or other malignant code…." – e.g. par. [0037])

It would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate Van der Made's identifying a previous incoming transmission is a retroactive analysis of a previously accepted transmission into Admitted Prior Art –common knowledge in the art motivated by improving techniques for detecting virus and other malicious types of code are desirable (e.g. Van der Made, paragraph [0013]) in order to avoid identifying a large number of false positives for P-code and N-code programs and to detect all virus or malicious code not previously identified and all virus or malicious code created after the update to the signature database will be detected (e.g. Van der Made, par. [0005] – [0007]).

Response to Arguments

13. Applicant's arguments filed 6 December 2007 have been respectfully and fully considered but they are not persuasive.

14. Applicant's argument are summarized as:

a. The Applicant argues, "claim 1 is directed to a method and claim 30 is directed to a manufacture, so that the subject matter corresponds to a "process" and a "manufacture" respectively as recited in 35 U.S.C. 101. Therefore, applying the judicial exception test "useful, concrete and tangible result" is not an issue for these claims" (see Remark pages 12-13), the examiner respectfully disagrees.

First, Statutory processes are evidenced by physical transformation steps, such as chemical, electrical, and mechanical steps. In claim 1, there is no implicit transformation of electrical signals from one state to another as happens in a computer. The steps do not transform any physical subject matter into a different state or thing. Accordingly, the steps in claim 1 do not define a statutory "process" under § 101 using the "transformation" test. Second, claim 1 encompasses the abstract idea of plan or goal of tracking incoming transmission. Then we need to look a useful, concrete and tangible result to establish a practical application. Contrary to Applicant's argument that claim 1 that storing the computed fingerprint to generate a set of stored fingerprints is useful, concrete and tangible result, the examiner respectfully responds that in accordance with the disclosure and knowledge of those of ordinary skill in the art at the time of the invention, storing the computed fingerprint to generate a set of stored fingerprint is just an abstract concept and there is no tangible result being produced. It is nothing but a disembodied "abstract idea" until it is instantiated in some physical way so as to become a practical application of the idea. The steps of "identifying…computing…storing…to generate...receiving...and comparing..." merely

describe steps or goals in the plan, and do not recite how those steps are implemented in some physical way: the steps remain disembodied. Because the steps cover ("preempt") any and every possible way of performing the steps of the plan, by human or any kind of machine or by any combination thereof, the examiner concludes that the claim is so broad that it is directed to the "abstract idea" itself, rather than a practical implementation of the concept. Further, claim 30 is not directed to a Manufacture within the meaning of 101, since it is not an article produced from raw or prepared materials. Furthermore, claim 30 is directed to a computer program product having a computer readable medium operable to store computer program logic to perform above discussed step 1. Thus, claim 30 is rejected using the same rationale as rejecting claim 1 above.

b. The Applicant argues, "Claims 17 and 32 have been amended to add "a processor comprising…Claims 17 and 32 now recite a combination of hardware and software" (see Remark pages 13-14), the examiner respectfully disagrees.

First, the examiner's position is that a device, processor, server, segmenter, repository and comparator can be reasonably interpreted by one of ordinary skill in the art as software, i.e. a database, file, or other data structure used for storage, connecting, outputting, transmitting and etc. According to "The Authoritative Dictionary of IEEE Standards Terms Seventh EDITION", "device (10) (software) A mechanism or piece of equipment designed to serve a purpose or perform a function" on page 297, "processor (2) (software) A computer program that includes the compiling, assembling, translating, and related functions for a specific programming language on page 872, and

"server (5) the software component on one device that provides services for use by clients on the same or another device" on page 1031.

Second, the Applicant did not provide explicit definitions of the terms used in the specification (Please see specification pages 9-11). Therefore, the specification does not contain any statement instructing one to interpret device, processor, server, segmenter, repository and comparator are **always** referring to hardware, i.e. a microprocessor, or a combination of hardware and software rather than software per se. "Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. Toro Co. v. White Consolidated Industries Inc., 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999) (meaning of words used in a claim is not construed in a "lexicographic vacuum, but in the context of the specification and drawings."). Any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." Multiform Desiccants Inc. v. Medzam Ltd., 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998). See also MPEP § 2111.01."

c. The Applicant argues, "..the Applicant Admitted Prior Art does not disclose identifying a previous incoming transmisstion…and the cited text is silent as to previous incoming transmissions, which are different than incoming transmissions" and "it is not necessary to store the computed fingerprint in the common art" (See Remark 14-15), the examiner respectfully disagrees.

First, for example, on page 2, lines 9-25 of the Applicant original disclosure, AAPA discloses ("…Conventional off-the-shelf (OTS) virus detection software typically scans for such undesirable transmission by matching against **a set of known harmful transmissions. Typically, such conventional matching includes comparing a signature or other digital artifact…**therefore, employ a set of known virus fingerprints for comparison with incoming mail message…". Please note a set of known harmful transmissions correspond to Applicant's previous incoming transmission.

Second, according to MPEP § 2106, 8th Ed. Rev. 5, "USPTO personnel are to give **claims their broadest reasonable interpretation in light of the supporting disclosure.** In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). **Limitations appearing in the specification but not recited in the claim should not be read into the claim.** E-Pass Techs., Inc. v. 3Com Corp., 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily). In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550- 551 (CCPA 1969). See also In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320,1322 (Fed. Cir. 1989) ("**During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim**

scope be removed, as much as possible, during the administrative process."). In this case, the Applicant cited page 3 lines 3-10 of the Application, "...**previously accepted traffic**...". However, "previously accepted traffic" in the specification is different from "a previous incoming transmission". Therefore, the Applicant is respectfully reminded again "**Limitations appearing in the specification but not recited in the claim should not be read into the claim".**

Third, in order to better explain her position that storing the computed fingerprint in the common art, the examiner further explain in the above rejection that on page 2, lines 22-27, "Such conventional virus detection applications, therefore, employs a set of known virus fingerprints for comparing with incoming mail messages. The **set contains** a fingerprint for each known virus which the application is to protect against, and the application compares each fingerprint in the set to suspect message portions. Typically, vendors of such conventional virus detection applications provide **periodic updates** including additions to the fingerprint set of known virus". It is common knowledge in the art that in order to compare a set of fingerprints computed from a message against a set of fingerprints stored in the database or repository and in order to periodic updates to the fingerprint set of known virus, the computed fingerprints at least have to be stored in a temporary buffer or storage prior to comparison and updates.

d. The Applicant argues, "Dependent claims are allowable due to dependency" (see Remark page 16), the examiner respectfully disagrees.

In response to argument 'd', the examiner respectfully traverses. Applicant's argument for claims 1, 17, 30 and 32 as discussed above are traversed and therefore,

the Applicant's arguments for dependent claims are based on dependency on claims 1, 17, 30 and 32 are traversed and it is not allowable.

e. New dependent claims 33 and 34 are addressed in the above new ground rejection.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In particular, Applicant is **strongly urged** to review references Van der Made (U.S. Patent 7,093,239), Margolus et al. (U.S. Patent 7,124,305), Gibbs (U.S. Patent 6,615,348), Leeds (U.S. Patent 6,393,465), Tarbotton et al. (U.S. Patent 6,757,830), Ji et al. (U.S. Patent 5,889,943), Smithson et al. (U.S. Patent 6,886,099) and Jordan (U.S. Patent 7,231,667) in response to the current office action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April Y. Shan whose telephone number is (571) 270-1014. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/April Y Shan/

Examiner, Art Unit 2135

/KIMYEN VU/

Supervisory Patent Examiner, Art Unit 2135